United States Patent [19]

Myer

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[54] **MAGNETORESISTIVE READOUT FOR DOMAIN ADDRESSING INTERROGATOR**

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[51] **Int. Cl.** **G11c 11/14**

[58] **Field of Search** ..... 340/174 TF, 174 MA, 340/174 EB, 340/174 PM, 174 JA, 174 M, 174 CC

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[57] **ABSTRACT**

There are disclosed digital data processing and memory devices wherein the detection of one or more cylindrical uniaxial magnetic domains each representing a stored bit of digital data in a first crystal platelet or sheet of magnetic material is accomplished by detecting the presence or absence of a corresponding cylindrical uniaxial magnetic domain in a second associated crystal platelet or sheet of magnetic material which is positioned in magnetically coupled relation to the first so that the resulting magnetic field produced by the coaction of the two domains is in turn detectable by an appropriately positioned thin film magnetoresistive element, the resistance of which varies in accordance with the vector relation between the current flow in the magnetoresistor and the magnetic field traversing it.

12 Claims, 9 Drawing Figures